



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/665,807

09/19/2003

Dan Adamson

MS320514.02/MSFTP1836USA

6636

27195 7590 08/27/2007
AMIN. TUROCY & CALVIN, LLP
24TH FLOOR, NATIONAL CITY CENTER
1900 EAST NINTH STREET
CLEVELAND, OH 44114

EXAMINER

SHARON, AYAL I

ART UNIT

PAPER NUMBER

2123

MAIL DATE

DELIVERY MODE

08/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/665,807

Applicant(s)

ADAMSON ET AL.

Examiner

Ayal I. Sharon

Art Unit

2123

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 9/19/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date 8/3/07.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Introduction

1. Claims 1-17 of U.S. Application 10/665,807, filed on 09/19/2003, are currently pending.
2. The application claims benefit of U.S. Provisional Application 60/411,902, filed on 09/19/2002.
3. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. The prior art used for these rejections is as follows:

- a. Birsan et al., U.S. Patent 7,131,066. ("**Birsan**").
- b. Le Hégarret et al., "What is the Document Object Model?". Nov. 13, 2000.
Available at <http://www.w3.org/TR/DOM-Level-2-Core/introduction.html>.
("**Le Hégarret**").

7. The claim rejections are hereby summarized for Applicant's convenience. The detailed rejections follow.

8. Claim 1-17 rejected under 35 U.S.C. 103(a) as being unpatentable over Birsan in view of Le Hégarret.

9. In regards to Claim 1, Birsan expressly teaches the following claimed limitations:

1. *A computer-implemented method to process a document, comprising: analyzing features of a document; and*

Birsan expressly teaches that "[T]he system provides the capability to navigate a source data model and extract specific data from the source data model to a target data model." (See Birsan, especially: col.2, lines 48-50)

Birsan also expressly teaches the generation of a domain model. (See especially col.4, lines 61-64, which teach that "As described above, the source data model (i.e. domain model 16 in Fig.1) contains read-only data that the mechanism 10 can extract and use to generate a formatted output (i.e. the target data model 18).")

Birsan also expressly teaches "manipulation of the DOM tree for the domain model." (See col.2, line 47). Birsan also teaches that "the mechanism 10 utilizes a 'tree' navigation scheme to perform transformations in the source data model 16 (and the target data model 18)." (See col.8, lines 37-40). However, Birsan does not expressly teach the generation of a set of domain models, as claimed in the following limitation:

generating a set of domain models, as a function of the analyzed features, that represent the document.

Le Hégaret, on the other hand, does expressly teach the use of a set of domain models, in this case a "forest" of DOM trees (See p.2 of Le Hégaret):

In the DOM, documents have a logical structure which is very much like a tree; to be more precise, which is like a "forest" or "grove", which can contain more than one tree. Each document contains zero or one doctype nodes, one root element node, and zero or more comments or processing instructions; the root element serves as the root of the element tree for the document. However, the DOM does not specify that documents must be implemented as a tree or a grove, nor does it specify how the relationships among objects be implemented. The DOM is a logical model that may be implemented in any convenient manner. In this specification, we use the term structure model to describe the tree-like representation of a document. We also use the term "tree" when referring to the arrangement of those information items which can be reached by using "tree-walking" methods; (this does not include attributes).

Birsan and Le Hégaret are analogous art because they are from the same field of endeavor of XML document management.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the teachings of Birsan with those of Le Hégaret so as to generate a set of domain models ("trees") for a single document.

The suggestion/motivation for combining the references would have been Le Hégaret's teaching in the text cited above that "In the DOM, documents have a logical structure ... which can contain more than one tree."

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Birsan with Le Hégaret to obtain the invention specified in Claim 1.

10. In regards to Claim 2, Birsan expressly teaches the following:

- 2. The method of claim 1, wherein a domain model relates to a simple type, or a complex type, and:
if a property for a domain model is of the simple type, populating the domain model with a value according to the document being represented; and
if a respective property type for a domain model is of the complex type, selectively adding another domain model as the value for that property, according to the document being represented.*

(See Birsan, especially: col.10, lines 16-27)

11. In regards to Claim 3, Birsan teaches the following limitations:

- 3. The method of claim 1 further comprising:
searching the set of domain models to determine a subset of features of the document that match search criteria.*

(See Birsan, especially: col.8, lines 37-44)

12. In regards to Claim 4, Birsan teaches the following limitations:

- 4. The method of claim 2, comprising:
analyzing the set of domain models by determining values of properties from at least one model.*

(See Birsan, especially: col.2, line 41 to col.3 line 41)

13. In regards to Claim 5, Birsan teaches the following limitations:

- 5. The method of claim 1, comprising:
describing the document as instances of the respective models of the set.*

(See Birsan, especially: col.4, line 61 to col.5, line 6)

14. In regards to Claim 6, Birsan teaches the following limitations:

*6. The method of claim 1 comprising:
setting values in at least one of the models that represent supplemental
information not in the document but is associated to the document.*

(See Birsan, especially: col.9, lines 8-11, See "template file".)

15. In regards to Claim 7, Birsan teaches the following limitations:

*7. The method of claim 2, comprising:
an automated process where a list of conditions must be met in the
document to populate a property with a value or set of values.*

(See Birsan, especially: col.5, lines 7-45. See "updatetargetscope directive".)

16. In regards to Claim 8, Birsan teaches the following limitations:

*8. The method of claim 1, wherein the analyzed features of the document
comprises keywords.*

(See Birsan, especially: col.5, line 46 to col.6, line 10. See "targetscope"
directive.)

17. In regards to Claim 9, Birsan teaches the following limitations:

*9. A computer-implemented method to facilitate locating a document,
comprising:

receiving a query related to locating the document; and
searching across a plurality of domain models that respectively represent
a plurality of documents; and
identifying a set of the domain models that match criteria of the receive
query.*

(See Birsan, especially: col.5, line 46 to col.6, line 10. See "targetscope"
directive.)

18. Claims 10-11 are rejected based on the same reasoning as claim 1. Claims 10-11 are system and medium claims that recite limitations equivalent to those recited in method claim 1 and taught throughout Birsan.

19. In regards to Claim 12, Birsan teaches the following limitations:

12. (Previously Presented) The method of claim 1, wherein generating the domain models comprises structuring the domain models so as to be searchable by a querying system.

(See Birsan, especially: col.5, line 46 to col.6, line 10. See "targetscope" directive.)

20. In regards to Claim 13,

13. (Previously Presented) The method of claim 1, comprising representing portions of the documents with respective instances of a subset of the generated domain models.

This claim is rejected on the same grounds as claim 1.

21. In regards to Claim 14, Birsan teaches the following limitations:

14. (Previously Presented) The method of claim 13, wherein the respective instances are computation ready representations of the portions of the documents that can be understood by a plurality of computer applications.

(See Birsan, especially: col.1, line 32 to col.2, line 37)

22. In regards to Claim 15, Birsan teaches the following limitations:

15. (Previously Presented) The method of claim 1, wherein the generated domain models can be queried in connection with locating a collection of documents.

Examiner finds that that use of plural documents constitutes a mere duplication of the parts. Birsan's teachings, which apply to one document, can be extended to many documents.

23. In regards to Claim 16,

16. (Previously Presented) The method of claim 1, wherein a hierarchy of domain models are generated as a function of respective analyzed features.

This claim is rejected on the same grounds as claim 1.

24. In regards to Claim 17, Birsan teaches the following limitations:

17. (Previously Presented) The method of claim 9, comprising searching across the domain models in connection with locating a collection of documents.

Examiner finds that that use of plural documents constitutes a mere duplication of the parts. Birsan's teachings, which apply to one document, can be extended to many documents.

Conclusion

25. The following prior art, made of record and not relied upon, is considered pertinent to applicant's disclosure.

26. Carlson et al., U.S. Patent 7,149,734. (See especially col.3, lines 3-15, and col., line 65 to col.4, line 17).

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ayal I. Sharon whose telephone number is (571) 272-3714. The examiner can normally be reached on Monday through Thursday, and the first Friday of a bi-week, 8:30 am – 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached at (571) 272-3753.

Art Unit: 2123

Any response to this office action should be faxed to (571) 273-8300, or
mailed to:


USPTO
P.O. Box 1450
Alexandria, VA 22313-1450

or hand carried to:

USPTO
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application
or proceeding should be directed to the Tech Center 2100 Receptionist, whose
telephone number is (571) 272-2100.

Ayal I. Sharon
Art Unit 2123
August 17, 2007


ZOILA CABRERA
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100

8/20/07